

1. (Amended) An optical waveguide comprising:

a guiding lamina of optical material bonded by direct interfacial bonding to a superstructure lamina of optical material, and

a second superstructure lamina bonded by direct interfacial bonding to the guiding lamina, the guiding lamina defining a light guiding path, wherein said path is formed of an unmodified optical region of the guiding lamina and a modified optical region defines a boundary of said path.

- 2. (Amended) A waveguide according to claim 1, in which the guiding lamina is formed of a ferroelectric material.
- 3. (Amended) A waveguide according to claim 2, in which the guiding lamina is formed of lithium niobate.
- 4. (Amended) A waveguide according to claim 2, in which the modified regions are electrically poled regions of the guiding lamina.
- 5. (Amended) A waveguide according to claim 4, in which the modified regions are spatially periodically electrically poled regions of the guiding lamina.
- 6. (Amended) A waveguide according to claim 1, in which the modified regions are formed by indiffusion of one or more dopant materials into the guiding lamina.



7. (Amended) A waveguide according to claim 1, in which at least part of the modified regions form the light-guiding path.

- 9. (Amended) An optical parametric device comprising:
 a waveguide according to claim 1; and
 means for launching an input optical signal into the waveguide.
- 10. (Amended) A device according to claim 9, comprising:

 an output filter for filtering light emerging from the waveguide to reduce components having the wavelength of the input optical signal.
- 11. (Amended) A method of fabricating an optical waveguide, the method comprising the steps of:
- (a) bonding, by direct interfacial bonding, a guiding lamina (10) of optical material to a superstructure lamina of optical material;
- (b) modifying optical properties of regions of the guiding lamina so as to define a light guiding path along the guiding lamina;
- (c) removing material from the guiding lamina to reduce the thickness of the guiding lamina; and
- (d) bonding, by direct interfacial bonding, a further superstructure lamina to the guiding lamina.

(d).

12. (Amended) A method according to claim 11, further comprising:

before step (a), indiffusing and/or out-diffusing material to/from one face of the guiding lamina, that face being bonded to the superstructure lamina in step (a); and before step (d), indiffusing and/or out-diffusing material to/from the exposed face of the guiding lamina, that face being bonded to the further superstructure lamina in step